UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ABBOTT LABORATORIES, an Illinois corporation, Plaintiff, v. BANNER PHARMACAPS INC., a Delaware corporation, Defendant.	Civil Action No.

COMPLAINT

Plaintiff Abbott Laboratories ("Abbott"), for its complaint against defendant Banner Pharmacaps Inc. ("Banner"), alleges as follows:

THE PARTIES

1. Abbott is a corporation organized under the laws of the State of Illinois, having its headquarters and principal place of business at Abbott Park, Illinois 60064.

2. Banner is a corporation organized under the laws of the State of Delaware, having its principal place of business at 4100 Mendenhall Oaks Parkway, Suite 301, High Point, NC 27265.

JURISDICTION AND VENUE

3. This Court has subject matter jurisdiction over this suit pursuant to 28 U.S.C. § 1331 and § 1338(a), as it arises under an Act of Congress relating to patents, Title 35, United States Code, §§ 1, *et seq.* Specifically, this action arises under the Hatch-Waxman Act, 35 U.S.C. § 271(e)(2).

4. This Court has personal jurisdiction over Banner.

5. Venue properly exists in this judicial district pursuant to 28 U.S.C. § 1391 and § 1400(b).

FACTUAL BACKGROUND

The '731 and '326 Patents

6. Abbott sells divalproex sodium tablets under the trademark Depakote®. Depakote® is used to treat epileptic seizures or convulsions, the manic episodes associated with bipolar disease, and for prophylaxis of migraine headaches.

7. The FDA approved Abbott's New Drug Application No. 18-723 to market Depakote® on March 10, 1983. As a result, Depakote® is included in the FDA's list of "Approved Drug Products With Therapeutic Equivalence Evaluations," also known as the "Orange Book." Approved drugs may be used as the basis of a later applicant's submission seeking FDA approval.

8. United States Patent No. 4,988,731 ("the '731 patent"), titled Sodium Hydrogen Divalproate Oligomer, issued on January 29, 1991. (A copy of the '731 patent is attached as Exhibit A.) The '731 patent expires January 29, 2008.

9. United States Patent No. 5,212,326 ("the '326 patent"), also titled Sodium Hydrogen Divalproate Oligomer, issued on May 18, 1993. (A copy of the '326 patent is attached as Exhibit B.) The '326 patent expires January 29, 2008.

10. Abbott is the owner of the '731 patent and the '326 patent and has the right to enforce both patents.

11. The claims of the '731 patent and the '326 patent have been interpreted by the United States Court of Appeals for the Federal Circuit, which has ruled that those patents are valid and enforceable and that they cover divalproex sodium. *See Abbott Labs v. TorPharm, Inc.*, 300 F.3d 1367 (Fed. Cir. 2002); *see also Abbott Labs v. TorPharm, Inc.*, 156 F. Supp. 2d

738 (N.D. Ill. 2001) (Norgle, J.); *Abbott Labs v. TorPharm, Inc.*, 309 F. Supp. 2d 1043 (N.D. Ill. 2004) (Posner, J, sitting by designation); *Abbott Labs v. Alra Labs*, 1997 WL 667796 (N.D. Ill. 1997) (Zagel, J.).

12. The '731 patent, '326 patent, and other patents are listed in the "Orange Book" in association with Depakote®.

Banner Notifies Abbott Regarding the Filing of New Drug Application 22-152

13. Abbott received a letter from Banner, dated October 9, 2007, which stated that (i) Banner had submitted New Drug Application No. 22-152 (the "Banner NDA") to the FDA, requesting approval to market a purported generic version of Depakote® in 125, 250, and 500 mg dosage strengths; (ii) the Banner NDA included a certification under 21 U.S.C. § 355(b)(2)(iv) of the Federal Food, Drug, and Cosmetic Act that the Banner NDA product would not infringe the '731 patent or the '326 patent; and (iii) Banner seeks FDA approval to market its product before the '731 patent and the '326 patents expire.

14. Banner attached to its October 9, 2007 letter a purportedly "Detailed Statement of the Factual and Legal Bases" for Banner's Paragraph IV Certification with regards to the '731 patent and the '326 patent. *See* 21 U.S.C. § 355(b)(3)(D)(ii). Banner stated its position in that document regarding whether its proposed product would infringe the '731 patent and the '326 patent, but did not argue that either patent is invalid or unenforceable.

15. Although Banner's October 9 letter describes the active ingredient in its proposed product as valproic acid, Banner did not select an approved valproic acid product as the reference listed drug for its FDA application. For instance, Abbott's Depakene® product contains valproic acid as its active ingredient, is listed in the Orange Book, and could be referenced by any company seeking to market a generic valproic-acid product. Instead, Banner suggests to FDA in

its application that the proper reference listed drug for its proposed product is Depakote®, which contains divalproex sodium—not valproic acid—as its active ingredient.

16. Banner's business partner, Noven Pharmaceuticals, Inc. (which will be responsible for marketing and distributing Banner's proposed product upon FDA approval), has stated publicly that approval of Banner's proposed generic product is subject to any exclusivity periods applicable to Depakote®. (*See* Press Release, attached as Exhibit C.)

COUNT I: INFRINGEMENT OF THE '731 PATENT

17. Abbott repeats and incorporates by reference each and every allegation of paragraphs 1-16 as if fully set forth herein.

18. Under 35 U.S.C. § 271(e)(2), the submission of a NDA under 21 U.S.C. § 355(b)(2) for a drug claimed in a patent or for a drug use claimed in a patent is an act of infringement if the applicant seeks FDA marketing approval effective prior to the expiration of the patent.

19. Banner's submission of NDA No. 22-152 for approval to sell the product described therein in 125, 250, and 500 mg dosage strengths before the expiration of the '731 patent constitutes an act of infringement of that patent pursuant to 35 U.S.C. § 271(e)(2).

20. Abbott has no adequate remedy at law to redress this act of infringement.

COUNT II: INFRINGEMENT OF THE '326 PATENT

21. Abbott repeats and incorporates by reference each and every allegation of paragraphs 1-16 as if fully set forth herein.

22. Under 35 U.S.C. § 271(e)(2), the submission of an ANDA under 21 U.S.C. § 355(b)(2) for a drug claimed in a patent or for a drug use claimed in a patent is an act of infringement if the applicant seeks FDA marketing approval effective prior to the expiration of the patent.

23. Banner's submission of NDA No. 22-152 for approval to sell the product described therein in 125, 250, and 500 mg dosage strengths before the expiration of the '326 patent constitutes an act of infringement of that patent pursuant to 35 U.S.C. § 271(e)(2).

24. Abbott has no adequate remedy at law to redress this act of infringement.

PRAYER FOR RELIEF

WHEREFORE, Abbott prays for the following relief:

a. a judgment that the '731 patent is infringed under 35 U.S.C. § 271(e)(2) by the filing of NDA No. 22-152;

b. a judgment that the '326 patent is infringed under 35 U.S.C. § 271(e)(2) by the filing of NDA No. 22-152;

c. an order declaring that NDA No. 22-152 cannot be approved earlier than the expiration date of Abbott's '731 patent;

d. an order declaring that NDA No. 22-152 cannot be approved earlier than the expiration date of Abbott's '326 patent;

e. an injunction preventing Banner, or any of its affiliates, from commercially manufacturing, selling, offering to sell, importing, or using the product described in NDA No. 22-152, or otherwise infringing one or more claims of the '731 patent during the life of the patent;

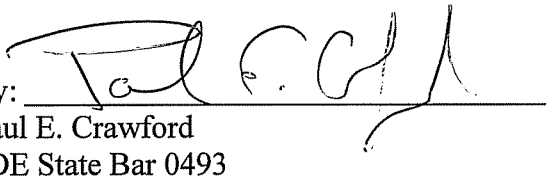
f. an injunction preventing Banner, or any of its affiliates, from commercially manufacturing, selling, offering to sell, importing, or using the product described in NDA No. 22-152, or otherwise infringing one or more claims of the '326 patent during the life of the patent;

g. such other and further relief as this Court may deem just and proper.

Dated: November 21, 2007

Respectfully submitted,

CONNOLLY BOVE LODGE & HUTZ LLP

By: 

Paul E. Crawford
DE State Bar 0493
E-mail: pcrawford@cblh.com
CONNOLLY BOVE LODGE & HUTZ LLP
1007 N. Orange St.
P.O. Box 2207
Wilmington, DE 19899
(T) 302.658.9141
(F) 302.658.5614

Attorneys for Abbott Laboratories

Of Counsel
Daniel E. Reidy
E-mail: dereidy@jonesday.com
James R. Daly
Email: jrdaly@jonesday.com
Jason G. Winchester
Email: jgwinchester@jonesday.com
Jeremy P. Cole
Email: jpcole@jonesday.com
Melissa B. Hirst
Email: mbhirst@jonesday.com
JONES DAY
77 West Wacker Drive, Suite 3500
Chicago, Illinois 60601-1692
(T): 312.782.3939
(F): 312.782.8585

Perry C. Siatis
ABBOTT LABORATORIES
100 Abbott Park Road
Abbott Park, Illinois 60064-6034

EXHIBIT A

United States Patent [19]

Meade

[11] **Patent Number: 4,988,731**

[45] **Date of Patent: Jan. 29, 1991**

[54] **SODIUM HYDROGEN DIVALPROATE OLIGOMER**

[75] Inventor: **Edwin M. Meade**, Duncan, Canada

[73] Assignee: **Abbott Laboratories**, Abbott Park, Ill.

[21] Appl. No.: **117,945**

[22] Filed: **Nov. 9, 1987**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 68,284, Aug. 20, 1979, abandoned.

[51] **Int. Cl.**[5] **A61K 31/00**; C07C 53/128

[52] **U.S. Cl.** **514/557**; 562/606

[58] **Field of Search** 562/606; 514/557

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,895,976	7/1959	Kairys et al.	260/419
2,915,537	12/1959	Meade	260/419
4,127,604	11/1978	Chignac et al.	562/606
4,558,070	12/1985	Bauer et al.	514/557

FOREIGN PATENT DOCUMENTS

1074978	10/1954	France	562/606
2442M	4/1964	France	562/606

OTHER PUBLICATIONS

"The Pharmacological Studies on Sodium Dipropylacetate Anticonvulsant Activities and General Pharmalogical Actions", K. Shuto and T. Nishigaki, Applied Pharmacology, 4[6], pp. 937–949 (1970).

Primary Examiner—Vivian Garner

Attorney, Agent, or Firm—Steven F. Weinstock

[57] **ABSTRACT**

This invention concerns certain diethyl- or dipropylacetic acid salts of sodium valproate which have physiological properties similar to those of valproic acid or sodium valproate but show highly superior stability characteristics.

2 Claims, No Drawings

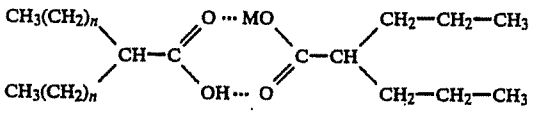
SODIUM HYDROGEN DIVALPROATE OLIGOMER

This is a continuation-in-part of copending application Serial No. 68,284, filed Aug. 20, 1979 now abandoned.

This invention relates to salts of valproic acid. In the last decade, 2-propylpentanoic acid and its alkali or earth alkali salts (hereinafter referred to as valproic acid and valproates or valproate salts, respectively) have been introduced in the arsenal of drugs useful for treating epileptic seizures or convulsions. Most commonly used are valproic acid itself or its sodium salt. The former is a liquid and as such is less desirable for preparing an oral dosage form while the latter is a solid that has poor stability characteristics partially due to pronounced hygroscopicity.

It has now been found that a highly stable, nonhygroscopic, solid entity can be prepared from valproic acid and its salts, representing a single chemical molecule with welldefined physical characteristics.

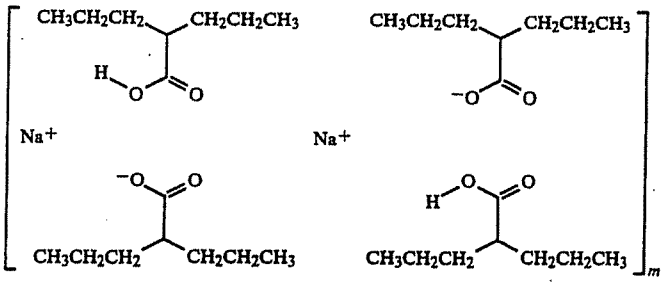
The new compound represents a single crystalline entity consisting of one molecule each of valproic acid or diethylacetic and a sodium valproate salt. There has been some uncertainty as to the structure of the compound. It was first hypothesized that the compound formed a complex in the form of a compound thus:



(I)

where M represented Na and n is 1 or 2.

Subsequent investigations have confirmed that the compound consists of one molecule each of valproic acid or diethylacetic acid and sodium valproate. However, it has been found that the molecules are distributed as an ionic oligomer, rather than as a dimer as originally believed. Thus, the sodium salt may be illustrated:



(II)

wherein m is about 2.

As can be seen from the foregoing structure, one mole each of the valproic acid moieties form coordinate bonds with the sodium of the sodium valproate molecule, and the valproate ion is ionically bonded to the sodium atom. The structure is thus consistent with the unique characteristics of the compound.

In the simplest embodiment, the above compound is prepared by dissolving one mole each of $[Me(CH_2)_n]_2$—CHCOOH and sodium valproate in 1000 ml of acetone at about 50° C. After cooling the solution to 0° C. or below, the formed new compound is filtered, washed if desired with pre-cooled acetone, and dried under reduced pressure to remove all traces of acetone. Alternately, the new compound wherein n=2 can be made in a two-component liquid medium which includes acetone. In this instance, sodium valproate is formed in situ by adding NaOH at a level of one half of a molecular equivalent of the valproic acid present, preferably as a solution in an acetone-miscible solvent for said NaOH, e.g. water. The new compound can be recovered from the liquid phase by evaporating the solvent(s) and, if desired, the new compound can be recrystallized, for instance from acetone/water, from acetonitrile or others, or the material may be spray-dried, lyophilized or purified by chromatography.

The new compound represents a single chemical molecule as can be determined by microanalysis, nmr spectrum, mixed melting point determination, IR spectrum and/or X-ray diffraction. The new compound does not have the aforementioned detrimental physical characteristics of either of the two starting materials; it is a crystalline, stable solid. Surprisingly, such a useful compound can be made only from valproic acid and diethylacetic acid on one side of the molecule, with the sodium or salt of valproic acid. When other valproate salts are used, i.e., the potassium, ammonium or magnesium salts, the resulting compound, either does not crystallize, does not form or is highly unstable in the presence of any atmospheric moisture.

The process for making the compounds of this invention are best illustrated by reference to the following examples which, however, are not intended to limit the invention in any respect.

EXAMPLE 1

In 1000 ml of acetone at about 50° C. is dissolved 166 g of sodium valproate and 144 g of valproic acid. The solution is cooled to about 0° C., filtered and the crystalline precipitate is washed with pre-cooled acetone at about 0° C. The new compound is obtained in a yield of 90% of theory. Additional material can be obtained by using the acetone filtrate in a subsequent batch.

The new material is a stable, white, crystalline powder which melts at 98–100° C. Its moisture stability is established by placing samples of the material for 45 minutes in a controlled environment at room temperature and 80% relative humidity. No weight gain is observed, while under the same condition, the simple sodium salt of valproic acid gains between 17 and 24% in weight.

The infrared spectrum is consistent with proposed structure II and has the following characterizing absorption bands: strong bands at 2957, 2872, 2932, 1685, 1555 and 1370 cm^{-1}. The first two of these indicate the various methyl groups, the last two are due respectively to the antisymmetric and symmetric O—C—O—stretching vibrations of the carboxyl salt. The remaining

strong bands indicate the stretching vibrations of the various methylene groups and the C=O in the carboxylic acid group, while the weak, broad bands at 2450 and 1900 cm^{-1} are due to intramolecularly bounded OH groups of the carboxylic acid.

EXAMPLE 2

In the fashion of Example 1 but using sodium valproate with the molar equivalents of dibutylacetic acid or diethylacetic acid, respectively, the corresponding hydrogen sodium mixed salts of the assumed structure II with n=b 3 or 1, respectively, are obtained. In the instance of dibutylacetic acid, a very hygroscopic product is obtained which is very difficult to handle and therefore unsuitable for pharmaceutical dosage forms. The mixed salt obtained with diethylacetic acid is a white crystalline powder which is stable to ordinary storage conditions and essentially nonhygroscopic.

EXAMPLE 3

In a comparison of anticonvulsant activities of
A: valproic acid (stable, liquid)
B: sodium valproate (hygroscopic solid)
C: compound (stable solid) of Example 1
the oral ED50 based on equimolar valproic acid equivalents are established by standard procedures. The results are as follows:

	A	B	C
Audiogenic seizures (mice)	154	141	81 mg/kg
Pentylenetetrazole seizures (mice)	<800	282	178 mg/kg
Pentylenetetrazole seizures (rats)	355	415	362 mg/kg

In a bioavailability study carried out with (A) and (C) above in various animal species, the peak blood plasma levels of oral, equimolar doses are determined according to standard procedures, 30 minutes after drug administration.

	A	C
Mouse (200 mg/kg)	133.7	207.4 mg/kg
Rat (200 mg/kg)	84.1	63.0 mg/kg
Dog (25 mg/kg)	65.2	73.6 mg/kg
Dog (25 mg/kg) AUC*	82.3	95.0 hr · mcg/ml

*Area under the curve value for 0–7 hours.

From the above examples, it will be seen that the new material has equal or better physiological properties than either valproic acid or sodium valproate. Since the new compound has far superior physical characteristics than either "monomer" from which it is made, it greatly facilitates the preparation of solid pharmaceutical dosage forms, and specific amounts can be weighed out and blended with starch and/or other binders to form a flowable powder which can be forwarded to standard tableting machines after granulation. Neither the hygroscopic sodium salt of valproic acid nor the liquid valproic acid itself can be processed in this fashion without special precautions or absorbents.

The new compounds can be tableted in accordance with Example XIII of U.S. Pat. No. 3,325,361 and analogous methods. In these procedures, one or more diluents and/or excipients are used, e.g., starch, talcum powder, lubricants, disintegrators, flavoring agents, coloring agents and the like. These additives, of course, are the usual pharmaceutically acceptable carriers or diluents employed in routine fashion by tablet formulators.

The above structure II is the most likely true two-dimensional view of the sodium/hydrogen divalproate and seems to be confirmed by IR and nmr spectra, by molecular weight and microanalytic values. Thus, the new material should be characterized not by depicting a structural formula but by reference to a single compound of formula $(CH_3CH_2CH_2)_2CHCO_2Na/R_2CH\text{-}CO_2H$ or $[(R_2CHCO_2)\ (R_2CHCO_2)]Na,H$ wherein each R is propyl, or by reference to sodium/hydrogen divalproate.

It will be understood that various changes and modifications can be made in the details of procedure, formulation and use without departing from the spirit of the invention, especially as defined in the following claims.

I claim:

1. An oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 4 such units.

2. An oral pharmaceutical dosage form for treating the symptoms of epileptic seizures or convulsions, containing as the active principal an oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 4 such units.

* * * * *

EXHIBIT B

US005212326A

United States Patent [19]

Meade

[11] Patent Number: 5,212,326

[45] Date of Patent: * May 18, 1993

[54] **SODIUM HYDROGEN DIVALPROATE OLIGOMER**

[75] Inventor: **Edwin M. Meade**, Duncan, Canada

[73] Assignee: **Abbott Laboratories**, Abbott Park, Ill.

[*] Notice: The portion of the term of this patent subsequent to Jan. 29, 2008 has been disclaimed.

[21] Appl. No.: **637,828**

[22] Filed: **Jan. 7, 1991**

Related U.S. Application Data

[63] Continuation of Ser. No. 117,945, Nov. 9, 1987, Pat. No. 4,988,731, which is a continuation of Ser. No. 545,719, Oct. 26, 1983, abandoned, which is a continuation-in-part of Ser. No. 68,284, Aug. 20, 1979, abandoned.

[51] **Int. Cl.**[5] **C07B 53/00**; A01N 37/00; A61K 31/19

[52] **U.S. Cl.** **562/606**

[58] **Field of Search** 562/606; 514/557

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,127,604	11/1978	Chignac et al.	562/606
4,558,070	12/1985	Bauer et al.	562/606 X
4,988,731	1/1991	Meade	562/606 X

FOREIGN PATENT DOCUMENTS

1074978	10/1954	France	562/606
2442M	4/1964	France	562/606

Primary Examiner—José G. Dees
Assistant Examiner—Joseph M. Conrad
Attorney, Agent, or Firm—Steven F. Weinstock

[57] **ABSTRACT**

This invention concerns certain diethyl- or dipropylacetic acid salts of sodium valproate which have physiological properties similar to those of valproic acid or sodium valproate but show highly superior stability characteristics.

5 Claims, No Drawings

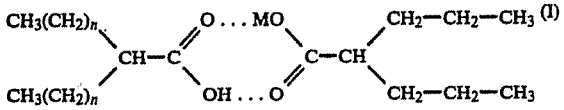
SODIUM HYDROGEN DIVALPROATE OLIGOMER

This application is a continuation of Ser. No. 117,945, filed Nov. 9, 1987, now U.S. Pat. No. 4,988,731 issued Jan. 29, 1991, which is a continuation of Ser. No. 545,719 filed Oct. 26, 1983, now abandoned, which is a continuation-in-part of Ser. No. 068,284 filed Aug. 20, 1979, now abandoned.

This invention relates to salts of valproic acid. In the last decade, 2-propylpentanoic acid and its alkali or earth alkali salts (hereinafter referred to as valproic acid and valproates or valproate salts, respectively) have been introduced in the arsenal of drugs useful for treating epileptic seizures or convulsions. Most commonly used are valproic acid itself or its sodium salt. The former is a liquid and as such is less desirable for preparing an oral dosage from while the latter is a solid that has poor stability characteristics partially due to pronounced hygroscopicity.

It has now been found that a highly stable, nonhygroscopic, solid entity can be prepared from valproic acid and its salts, representing a single chemical molecule with welldefined physical characteristics.

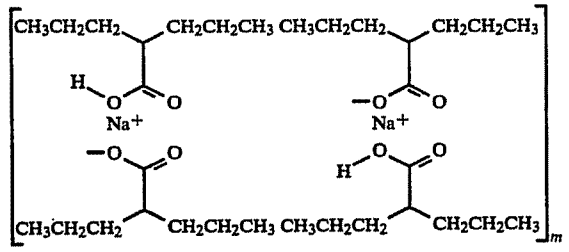
The new compound represents a single crystalline entity consisting of one molecule each of valproic acid or diethylacetic and a sodium valproate salt. There has been some uncertainty as to the structure of the compound. It was first hypothesized that the compound formed a complex in the form of a compound thus:



(I)

where M represented Na and n is 1 or 2.

Subsequent investigations have confirmed that the compound consists of one molecule each of valproic acid or diethylacetic acid and sodium valproate. However, it has been found that the molecules are distributed as an ionic oligomer, rather than as a dimer as originally believed. Thus, the sodium salt may be illustrated:



wherein m is about 2 to 3.

As can be seen from the foregoing structure, one mole each of the valproic acid moieties form coordinate bonds with the sodium of the sodium valproate molecule, and the valproate ion is ionically bonded to the sodium atom. The structure is thus consistent with the unique characteristics of the compound.

In the simplest embodiment, the above compound is prepared by dissolving one mole each of $[Me(CH_2)_n]_2$-CHCOOH and sodium valproate in 1000 ml of acetone at about 50° C. After cooling the solution to 0° C. or below, the formed new compound is filtered, washed if

desired with pre-cooled acetone, and dried under reduced pressure to remove all traces of acetone. Alternately, the new compound wherein n=2 can be made in a two-component liquid medium which includes acetone. In this instance, sodium valproate is formed in situ by adding NaOH at a level of one half of a molecular equivalent of the valproic acid present, preferably as a solution in an acetone-miscible solvent for said NaOH, e.g. water. The new compound can be recovered from the liquid phase by evaporating the solvent(s) and, if desired, the new compound can be recrystallized, for instance from acetone/water, from acetonitrile or others, or the material may be spray-dried, lyophilized or purified by chromatography.

The new compound represents a single chemical molecule as can be determined by microanalysis, nmr spectrum, mixed melting point determination, IR spectrum and/or X-ray diffraction. The new compound does not have the aforementioned detrimental physical characteristics of either of the two starting materials; it is a crystalline, stable solid. Surprisingly, such a useful compound can be made only from valproic acid and diethylacetic acid on one side of the molecule, with the sodium or salt of valproic acid. When other valproate salts are used, i.e., the potassium, ammonium or magnesium salts, the resulting compound, either does not crystallize, does not form or is highly unstable in the presence of any atmospheric moisture.

The process for making the compounds of this invention are best illustrated by reference to the following examples which, however, are not intended to limit the invention in any respect.

EXAMPLE 1

In 1000 ml of acetone at about 50° C. is dissolved 166 g of sodium valproate and 144 g of valproic acid. The solution is cooled to about 0° C., filtered and the crystalline precipitate is washed with pre-cooled acetone at about 0° C. The new compound is obtained in a yield of 90% of theory. Additional material can be obtained by using the acetone filtrate in a subsequent batch.

The new material is a stable, white, crystalline powder which melts at 98°–100° C. Its moisture stability is established by placing samples of the material for 45 minutes in a controlled environment at room temperature and 80% relative humidity. No weight gain is observed, while under the same condition, the simple sodium salt of valproic acid gains between 17 and 24% in weight.

The infrared spectrum is consistent with proposed structure II and has the following characterizing absorption bands: strong bands at 2957, 2872, 2932, 1685, 1555 and 1370 cm^{-1}. The first two of these indicate the various methyl groups, the last two are due respectively to the antisymmetric and symmetric O-C-O-stretching vibraitons of the carboxyl salt. The remaining strong bands indicate the stretching vibrations of the various methylene groups and the C=O in the carboxylic acid group, while the weak, broad bands at 2450 and 1900 cm^{-1} are due to intramolecularly bounded OH groups of the carboxylix acid.

EXAMPLE 2

In a comparison of anticonvulsant activities of
A: valproic acid (stable, liquid)
B: sodium valproate (hygroscopic solid)
C: compound (stable solid) of Example 1

the oral ED50 based on equimolar valproic acid equivalents are established by standard procedures. The results are as follows:

	A	B	C
Audiogenic seizures (mice)	154	141	81 mg/kg
Pentylenetetrazole seizures (mice)	<800	282	178 mg/kg
Pentylenetetrazole seizures (rats)	355	415	362 mg/kg

In a bioavailability study carried out with (A) and (C) above in various animal species, the peak blood plasma levels of oral, equimolar doses are determined according to standard procedures, 30 minutes after drug administration.

	A	C
Mouse (200 mg/kg)	133.7	207.4 mg/kg
Rat (200 mg/kg)	84.1	63.0 mg/kg
Dog (25 mg/kg)	65.2	73.6 mg/kg
Dog (25 mg/kg) AUC*	82.3	95.0 hr · mcg/ml

*Area under the curve value for 0–7 hours.

From the above examples, it will be seen that the new material has equal or better physiological properties than either valproic acid or sodium valproate. Since the new compound has far superior physical characteristics than either "monomer" from which it is made, it greatly facilitates the preparation of solid pharmaceutical dosage forms, and specific amounts can be weighed out and blended with starch and/or other binders to form a flowable powder which can be forwarded to standard tableting machines after granulation. Neither the hygroscopic sodium salt of valproic acid nor the liquid valproic acid itself can be processed in this fashion without special precautions or absorbents.

The new compounds can be tableted in accordance with Example XIII of U.S. Pat. No. 3,325,361 and analogous methods. In these procedures, one or more diluents and/or excipients are used, e.g., starch, talcum powder, lubricants, disintegrators, flavoring agents, coloring agents and the like. These additives, of course, are the usual pharmaceutically acceptable carriers or diluents employed in routine fashion by tablet formulators.

The above structure II is the most likely true two-dimensional view of the sodium/hydrogen divalproate and seems to be confirmed by IR and nmr spectra, by molecular weight and microanalytic values. Thus, the new material should be characterized not by depicting a structural formula but by reference to a single compound of formula $(CH_3CH_2CH_2)_2CHCO_2Na/R_2CHCO_2H$ or $[(R_2CHCO_2)(R_2CHCO_2)]Na,H$ wherein each R is propyl, or by reference to sodium/hydrogen divalproate.

It will be understood that various changes and modifications can be made in the details of procedure, formulation and use without departing from the spirit of the invention, especially as defined in the following claims.

I claim:

1. An oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 4 to 6 such units.

2. An oral pharmaceutical dosage form for treating the symptoms of epileptic seizures or convulsions, containing as the active principal an oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 4 to 6 such units.

3. An oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 6 such units.

4. An oral pharmaceutical dosage form for treating the symptoms of epileptic seizures or convulsions, containing as the active principal an oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and containing about 6 such units.

5. An oligomer having a 1:1 molar ratio of sodium valproate and valproic acid of the unit formula, $(CH_3CH_2CH_2)_2CHCO_2Na/(CH_3CH_2CH_2)_2CHCO_2H$, and having physical/chemical properties as follows:

a. stable, white crystalline powder;

b. melting point of 98°–100° C.; and

c. an infrared spectrum having strong absorption bands at about 2957, 2872, 2932, 1685, 1555 and 1370 cm^{-1}.

* * * * *

EXHIBIT C

FDA ISSUES APPROVABLE LETTER FOR STAVZOR™ DELAYED RELEASE VALPROIC ACID CAPSULES

Back

Noven/JDS Sales Force Expected to Launch Stavzor™ in 2008

Miami, FL, October 23, 2007 -- Noven Pharmaceuticals, Inc. (NASDAQ: NOVN) today announced that the U.S. Food and Drug Administration (FDA) has issued an approvable letter related to the New Drug Application (NDA) for Stavzor™ (delayed release valproic acid capsules) in 125mg, 250mg and 500mg strengths. The approvable letter relates to the use of Stavzor™ in the treatment of manic episodes associated with bipolar disorder, adjunctive therapy in multiple seizure types (including epilepsy), and prophylaxis of migraine headaches.

The FDA states in the letter that it has completed its review of the Stavzor™ NDA and that it is approvable. The FDA has requested certain non-clinical information, including additional *in vitro* dissolution data, as a condition to final approval. The FDA has not requested additional human studies or clinical data.

Because the NDA for Stavzor™, submitted under Section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act, references Abbott Laboratories' Depakote® product, final approval is also subject to the expiration of any applicable exclusivity periods benefiting Depakote®. Based on receipt of the approvable letter, interaction with Banner Pharmacaps Inc. (the NDA holder and developer of the product), and its understanding of Depakote® exclusivity, Noven continues to expect Stavzor™ final approval, at the latest, by the end of July 2008.

Stavzor™ was developed using Banner's patent-pending EnteriCare™ enteric soft gelatin capsule delivery system. Noven acquired a license to market and sell Stavzor™ in the U.S. as part of Noven's acquisition of JDS Pharmaceuticals in August 2007. Stavzor™ will be a branded product; it is not expected to be AB-rated to or generically substitutable for Depakote®, nor will Depakote® or any Depakote® generics be substitutable for Stavzor™. Promotion of the Stavzor™ brand will target primarily high-prescribing physicians through the Noven/JDS sales force.

"We are very pleased to announce that the FDA has issued an approvable letter for Stavzor™, and we offer our congratulations to the Banner and JDS teams for this successful result," said Robert C. Strauss, Noven's President, CEO & Chairman. "We are now working with Banner to satisfy the conditions to final approval as expeditiously as possible. Banner has advised that it expects to respond to the FDA's requests in the coming weeks. Concurrently, the Noven/JDS team has begun launch and production planning in anticipation of a 2008 launch of Stavzor™."

Banner Pharmacaps Inc., headquartered in High Point, North Carolina, is a global drug delivery and specialty pharmaceutical company developing a proprietary portfolio of unique products and oral dosage forms, including soft gelatin capsules.

EnteriCare™ is a trademark of Banner; Depakote® is a registered trademark of Abbott Laboratories or its affiliates.

About Noven

Noven Pharmaceuticals, Inc., headquartered in Miami, Florida, has established itself as a leading developer of advanced transdermal drug delivery technologies and prescription transdermal products. Its commercialized transdermal products include Vivelle-Dot® (estradiol transdermal system), the most prescribed estrogen patch in the U.S., and Daytrana™ (methylphenidate transdermal system), the first and only patch approved for the treatment of ADHD.

With the acquisition of JDS Pharmaceuticals in August 2007, Noven has become a broader-based specialty pharmaceutical company with the infrastructure, products and category expertise to market and sell products itself, and with a substantially enhanced late-stage product pipeline.

Products currently marketed through the JDS psychiatry sales infrastructure include Pexeva® (paroxetine mesylate) and Lithobid® (lithium carbonate). Pipeline products in psychiatry consist of Stavzor™ (delayed release valproic acid capsule), Lithium QD (once-daily lithium carbonate), and Stavzor™ ER (extended

release valproic acid capsule). Pipeline products in women's health consist of Mesafem™ (low-dose paroxetine mesylate), a non-hormonal product entering Phase 3 clinical trials for vasomotor symptoms (hot flashes). See www.noven.com for additional information.

Except for historical information contained herein, the matters discussed in this press release contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that involve substantial risks and uncertainties. Statements that are not historical facts, including statements which are preceded by, followed by, or that include, the words "believes," "anticipates," "plans," "expects" or similar expressions and statements, are forward-looking statements. Noven's estimated or anticipated future results, product performance or other non-historical facts are forward-looking and reflect Noven's current perspective on existing trends and information. Actual results, performance or achievements could differ materially from those contemplated, expressed or implied by the forward-looking statements contained herein. These forward-looking statements are based largely on the current expectations of Noven and are subject to a number of risks and uncertainties that are subject to change based on factors which are, in many instances, beyond Noven's control. These risks and uncertainties include, among others, risks associated with: the difficulty of predicting FDA actions, including the timing of such actions; the risk that the FDA's request for additional information will not be fulfilled in a timely fashion or in a manner satisfactory to the FDA, which could delay or prevent final approval of the product; uncertainties in the process of obtaining regulatory approval for new products; risks related to actions that may be taken by competitors; the possibility that any product launch may be delayed; and, if Stavzor™ is approved, the many risks that face new products, including the impact of competitive products and pricing, the risk that product acceptance may be less than anticipated, the risk of unexpected adverse side effects or inadequate therapeutic efficacy of a product, risks related to compliance with extensive, costly, complex and evolving governmental regulations and restrictions, and reimbursement policies of government and private health insurers and others. For additional information regarding these and other risks associated with Noven's business, readers should refer to Noven's Annual Report on Form 10-K for the year ended December 31, 2006 as well as other reports filed from time to time with the Securities and Exchange Commission. Unless required by law, Noven undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

Contact:
Joseph C. Jones
Vice President – Corporate Affairs
Noven Pharmaceuticals, Inc.
(305) 253-1916

Back

Copyright © 2007 Noven Pharmaceuticals, Inc. All rights reserved.

JS 44 (Rev. 11/04)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

Abbott Laboratories

(b) County of Residence of First Listed Plaintiff Lake County,IL
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)
Connolly Bove Lodge & Hutz LLP
1007 N. Orange St., P.O. BOX 2207
Wilmington, DE 19899 (302) 658-9141

DEFENDANTS

Banner Pharmacaps, Inc.

County of Residence of First Listed Defendant Guilford, NC
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT
- ☐ 110 Insurance
- ☐ 120 Marine
- ☐ 130 Miller Act
- ☐ 140 Negotiable Instrument
- ☐ 150 Recovery of Overpayment & Enforcement of Judgment
- ☐ 151 Medicare Act
- ☐ 152 Recovery of Defaulted Student Loans (Excl. Veterans)
- ☐ 153 Recovery of Overpayment of Veteran's Benefits
- ☐ 160 Stockholders' Suits
- ☐ 190 Other Contract
- ☐ 195 Contract Product Liability
- ☐ 196 Franchise

REAL PROPERTY
- ☐ 210 Land Condemnation
- ☐ 220 Foreclosure
- ☐ 230 Rent Lease & Ejectment
- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
- ☐ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ☐ 310 Airplane
- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
- ☐ 330 Federal Employers' Liability
- ☐ 340 Marine
- ☐ 345 Marine Product Liability
- ☐ 350 Motor Vehicle
- ☐ 355 Motor Vehicle Product Liability
- ☐ 360 Other Personal Injury

PERSONAL INJURY
- ☐ 362 Personal Injury - Med. Malpractice
- ☐ 365 Personal Injury - Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ☐ 370 Other Fraud
- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

CIVIL RIGHTS
- ☐ 441 Voting
- ☐ 442 Employment
- ☐ 443 Housing/ Accommodations
- ☐ 444 Welfare
- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
- ☐ 440 Other Civil Rights

PRISONER PETITIONS
- ☐ 510 Motions to Vacate Sentence

Habeas Corpus:
- ☐ 530 General
- ☐ 535 Death Penalty
- ☐ 540 Mandamus & Other
- ☐ 550 Civil Rights
- ☐ 555 Prison Condition

FORFEITURE/PENALTY
- ☐ 610 Agriculture
- ☐ 620 Other Food & Drug
- ☐ 625 Drug Related Seizure of Property 21 USC 881
- ☐ 630 Liquor Laws
- ☐ 640 R.R. & Truck
- ☐ 650 Airline Regs.
- ☐ 660 Occupational Safety/Health
- ☐ 690 Other

LABOR
- ☐ 710 Fair Labor Standards Act
- ☐ 720 Labor/Mgmt. Relations
- ☐ 730 Labor/Mgmt.Reporting & Disclosure Act
- ☐ 740 Railway Labor Act
- ☐ 790 Other Labor Litigation
- ☐ 791 Empl. Ret. Inc. Security Act

BANKRUPTCY
- ☐ 422 Appeal 28 USC 158
- ☐ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ☐ 820 Copyrights
- ☒ 830 Patent
- ☐ 840 Trademark

SOCIAL SECURITY
- ☐ 861 HIA (1395ff)
- ☐ 862 Black Lung (923)
- ☐ 863 DIWC/DIWW (405(g))
- ☐ 864 SSID Title XVI
- ☐ 865 RSI (405(g))

FEDERAL TAX SUITS
- ☐ 870 Taxes (U.S. Plaintiff or Defendant)
- ☐ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ☐ 400 State Reapportionment
- ☐ 410 Antitrust
- ☐ 430 Banks and Banking
- ☐ 450 Commerce
- ☐ 460 Deportation
- ☐ 470 Racketeer Influenced and Corrupt Organizations
- ☐ 480 Consumer Credit
- ☐ 490 Cable/Sat TV
- ☐ 810 Selective Service
- ☐ 850 Securities/Commodities/ Exchange
- ☐ 875 Customer Challenge 12 USC 3410
- ☐ 890 Other Statutory Actions
- ☐ 891 Agricultural Acts
- ☐ 892 Economic Stabilization Act
- ☐ 893 Environmental Matters
- ☐ 894 Energy Allocation Act
- ☐ 895 Freedom of Information Act
- ☐ 900Appeal of Fee Determination Under Equal Access to Justice
- ☐ 950 Constitutionality of State Statutes

V. ORIGIN (Place an "X" in One Box Only)

☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from another district (specify) ☐ 6 Multidistrict Litigation ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 USC 271(e)(2)

Brief description of cause:
Patent infringement action under the Hatch-Waxman Act

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23

DEMAND $

CHECK YES only if demanded in complaint:
JURY DEMAND: ☐ Yes ☒ No

VIII. RELATED CASE(S) IF ANY (See instructions): JUDGE Vacant Judgeship DOCKET NUMBER 1.07-cv-00250-xxx 1.07-cv-00388-xxx

DATE

November 21, 2007

SIGNATURE OF ATTORNEY OF RECORD

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

AO FORM 85 RECEIPT (REV. 9/04)

United States District Court for the District of Delaware

Civil Action No. 07-754

ACKNOWLEDGMENT OF RECEIPT FOR AO FORM 85

NOTICE OF AVAILABILITY OF A UNITED STATES MAGISTRATE JUDGE TO EXERCISE JURISDICTION

I HEREBY ACKNOWLEDGE RECEIPT OF 2 COPIES OF AO FORM 85.

11/21/07
(Date forms issued)

(Signature of Party or their Representative)

Stephen Lennon
(Printed name of Party or their Representative)

Note: Completed receipt will be filed in the Civil Action